

ABSTRACT OF THE DISCLOSURE

A method and apparatus for providing a vaporized reductant to an engine exhaust stream finds particular utility in the regeneration of a nitrous oxide adsorber in a Diesel engine exhaust treatment system. The method and apparatus are based on fueling the Diesel engine with a mixture of Diesel oil and an alcohol, such as methanol. At least a portion of the alcohol vaporizes in the fuel tank, or is forced to vaporize by passing the fuel mixture through a heat exchanger. The vapor is then stored in a canister for subsequent selective injection of the alcohol into the exhaust stream upstream of the adsorber. The alcohol then thermally decomposes to provide sufficient hydrogen and carbon monoxide to regenerate the adsorber.